Multiple Counting – Challenges and Traceability Requirements

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Multiple counting has been discussed in many variations in the past year without any solution

<table>
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<th>2009</th>
<th>10/2012</th>
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<td><strong>RED (2009/28/EC)</strong></td>
<td><strong>EC Proposal</strong></td>
<td><strong>European Parliament</strong></td>
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</table>
| - Double counting:  
  - wastes  
  - residues  
  - non-food cellulosic  
  - ligno-cellulosic  
  - No lists but examples:  
    - Crude glycerine,  
    - Straw  
    - Bagasse  
    - Husks  
    - Cobs  
    - Nut shells | - Quadruple counting  
  - Algae  
  - Straw  
  - Animal manure, sewage sludge  
  - POME, EFBs  
  - Tall oil pitch  
  - Crude glycerine  
  - Bagasse  
  - Grape marcs, wine lees  
  - Nut shells, husks, cobs, bark  
  - ... | - Quadruple counting  
  - Algae  
  - Renewable liquids  
  - Gaseous fuels of non-bio origin  
  - CCS  
  - Bacteria  
  - Double counting  
  - UCOME  
  - TME  
  - Advanced but single counting  
  - Waste, residues, straw, husks, etc. | - No quadruple counting  
  - List of double counting material  
  - Five times counting for electric mobility |
Further Member States implemented double counting. Harmonization, practical implementation and certification guidance remain limited.
Large volumes of double counting biofuels are already on the market. They reduce markets for traditional producers.
Due to double counting, high price premiums for UCOME can be achieved on top of FAME 0. This further increases incentives for fraud.

Source: © 2014 Starsupply Commodity Brokers.
German double counting UCOME achieves price premiums on top of EU double counting UCOME – This reflects higher certification efforts

Price premiums UCOME DE vs. EU (USD/t)

Missing harmonization leads to higher certification and administration costs, loopholes and loss of credibility – example PFAD

PFAD as waste
Certificate ✔
GHG emissions ✔

PFAD as co-product
Certificate ✔
GHG emissions ✔

Self-declaration as point of origin ✔
Only transport to biodiesel plant ✔

Final market
- e.g. Finland
- e.g. UK, NL

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Challenges do not disappear with Fuel Quality Directive implementation

**Fuel Quality Directive (2009/30/EC)**

- **EU:** FQD requires a **6 % GHG reduction** per energy unit*

**Decarbonization strategy for the transport sector**

- **EU:** FQD requires a **6 % GHG reduction** per energy unit*

- **Germany:**
  - **2015:** **GHG reduction quota**
    - (2015: 3%; 2017: 4.5%; 2020: 7%)

→ For a practical and secure implementation same open questions as for double counting need to be solved

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* Obtained through the use of biofuels, alternative fuels and reductions in flaring and venting at production sites (additional 4% by CCS, electric vehicles and CDM possible).
What needs to be done?

- Set up a list of wastes and residues vs. products/ co-products and clear procedure on amendments/ specifications
- Identify the respective points of origin and starting point for GHG calculation
- Define which default values can be used
- Define the certification approach to guarantee traceability and prevent fraud
- Require procedures for wastes and residues from voluntary schemes

→ Limited hope for an EU-28 approach from the European Commission

→ However, at least some cooperation between member states and voluntary schemes and a convergence of lists is taking place
A database to automatically transfer all required information in a closed system is part of the solution

Trace Your Claim (TYC) already offers this solution

- Fraud resistance due to closed system
- High data integrity
- Reduced documentation and administration
- Meets divergent member state requirements
- Direct data transfer to member state’s databases (e.g. ROS, NABISY, ELNA)

www.trace-your-claim.com